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EXAMINER
MAHMOOD, REZWANUL

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>06 November 2008</u>.
2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1,2 and 5-8</u> is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) <u>1,2 and 5-8</u> is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some * c) ☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>8/19/2008</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to the communication filed on November 6, 2008.

Claims 1, 2, and 5-8 are pending in this office action.

Response to Arguments

Applicant's arguments filed on November 06, 2008 have been fully considered but they are not persuasive for the following reasons:

Applicant argues that Toub and Cohen do not teach or even suggest the features " a step where said first computer system stores, into a memory located on said first computer system, said contents of records sent by said second computer system as database objects, updates said database objects by executing a plurality of preset data manipulations in turn, records contents of only one data manipulation as a log into said memory when said data manipulation was executed for said one database object, and records contents of only one data manipulation as a log that is needed to reflect to said database into said memory, when a plurality of data manipulations were executed for said one database object" and "a step where said first computer system stores, into one message, the contents of said database object left in said memory and logs recorded in said memory after final data manipulations, and after said plurality of preset data manipulations are completely executed, sending said message to said second computer system".

Examiner respectfully disagrees all of the allegations as argued. Examiner, in his previous office action, gave detail explanation of claimed limitation and pointed out

exact locations in the cited prior art.

Examiner is entitled to give claim limitations their broadest reasonable interpretation in light of the specification. See MPEP 2111 [R-1]

Interpretation of Claims-Broadest Reasonable Interpretation

During patent examination, the pending claims must be 'given the broadest reasonable interpretation consistent with the specification.' Applicant always has the opportunity to amend the claims during prosecution and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 162 USPQ 541,550-51 (CCPA 1969).

Toub teaches in Column 2 lines 46-53, Column 5 lines 3-56, Column 9 lines 47-67, Column 10 lines 1-11 a step where said first computer system stores, into a memory located on said first computer system, said contents of records sent by said second computer system as database objects, updates said database objects by executing a plurality of preset data manipulations in turn. The Cohen reference teaches in Column 5 lines 26-67, Column 6 lines 1-11 and 49-67, Column 7 lines 1-2 storing information changes made to the database by data manipulations as a log in a log file and enabling or disabling logging to limit recording of data manipulation contents as a log and only writing contents needed to reflect changes made to the database. The log writer in Cohen can be configured to write to the redo log file when a user process commits a transaction, so even when a plurality of data manipulations were executed for one database object, only one last data manipulation is written as a log into memory when the data manipulation was executed for the one database object. Therefore, it would

have been obvious to a person of ordinary skill in the art, at the time the invention was

made, to modify the teachings of Toub with the teachings of Cohen to record contents of

only one data manipulation as a log into said memory when said data manipulation was

executed for said one database object, and record contents of only one data

manipulation as a log that is needed to reflect to said database into said memory, when

a plurality of data manipulations were executed for said one database object for

selectively disabling the logging of database operations and transactions and to store

database operations so that the operations can be re-performed to restore the database

to its pre-failure state after a failure.

For the above reasons, Examiner believed that rejection of the last Office action

was proper.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 2, and 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Toub (US Patent 6,674,450) in view of Cohen (US Patent 5, 903,898).

With respect to claim 1, Toub discloses a method for persisting data

manipulations in a transaction processing system that consists of a first computer

system issuing a data manipulation request to a database having a plurality of records

and a second computer system accessing said database according to said data

manipulation request (Toub: Column 5, lines 3-56; Column 4, lines 9-29; Figure 2), said

method comprising:

a step where said first computer system designates a search condition,

requesting said second computer system to retrieve records that satisfy said search

condition from said database (Toub: Column 5, lines 3-56);

a step where said second computer system retrieves, from said database, all

records that satisfy said search condition designated by said first computer system,

sending the contents of retrieved records thereof back to said first computer system

(Toub: Column 5, lines 3-56);

a step where said first computer system stores, into a memory located on said

first computer system, said contents of records sent by said second computer system

as database objects, updates said database objects by executing a plurality of preset

data manipulations in turn, (Toub: Column 2, lines 46-53; Column 5, lines 3-56; Column

9, lines 47-67; Column 10, lines 1-11);

However, Toub does not explicitly disclose:

records contents of only one data manipulation as a log into said memory when

said data manipulation was executed for said one database object, and records

contents of only one data manipulation as a log that is needed to reflect to said

database into said memory, when a plurality of data manipulations were executed for

said one database object;

The Cohen reference, however, discloses storing information changes made to

the database by data manipulations as a log in a log file and enabling or disabling

logging to limit recording of data manipulation contents and only writing contents

needed to reflect changes made to the database (Cohen: Column 5, lines 26-67;

Column 6, lines 1-11 and 49-67; Column 7, lines 1-2; Here the log writer can be

configured to write to the redo log file when a user process commits a transaction, so

even when a plurality of data manipulations were executed for one database object,

only one last data manipulation is written as a log into memory when the data

manipulation was executed for the one database object).

Therefore, it would have been obvious to a person of ordinary skill in the art, at

the time the invention was made, to modify the teachings of Toub with the teachings of

Cohen to record contents of only one data manipulation as a log into said memory when

said data manipulation was executed for said one database object, and record contents

of only one data manipulation as a log that is needed to reflect to said database into

said memory, when a plurality of data manipulations were executed for said one

database object for selectively disabling the logging of database operations and

transactions and to store database operations so that the operations can be re-

performed to restore the database to its pre-failure state after a failure (Cohen: Column

2, lines 23-28; Column 3, lines 24-26).

Toub in view of Cohen discloses:

a step where said first computer system stores, into one message, the contents

of said database object left in said memory and logs recorded in said memory after final

data manipulations, and after said plurality of preset data manipulations are completely

executed, sending said message to said second computer system (Toub: Column 5,

lines 3-56; Cohen: Column 5, lines 26-67; Column 6, lines 1-11 and 49-67; Column 7,

lines 1-2); and

a step where said second computer system updates said database based on

said contents of said database object and said logs within said message received from

said first computer system (Toub: Column 5, lines 3-56; Cohen: Column 5, lines 26-67;

Column 6, lines 1-11 and 49-67; Column 7, lines 1-2).

With respect to claim 2, Toub in view of Cohen discloses the data manipulation

persisting method in a transaction processing system according to claim 1, wherein said

first computer system only stores, into said one message, said contents of said

database object whose contents are updated by said data manipulations from among

database objects that correspond to said contents of records sent by said second

computer system, and said contents of said database object that is added by said data

manipulation, and sends said message to said second computer system (Cohen:

Column 2, lines 35-67; Column 3, lines 32-35; Column 5, lines 26-67; Column 6, lines

49-67).

With respect to claim 5, Toub in view of Cohen discloses the data manipulation

persisting method in a transaction processing system according to claim 1, wherein said

first computer system stores one update log and contents after the final update in said

message with respect to a predetermined database object when update was repeated

to said database object (Cohen: Column 2, lines 35-67; Column 3, lines 32-35; Column 5, lines 26-67; Column 6, lines 49-67).

With respect to claim 6, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 1, wherein said first computer system stores one insertion log and contents after the update in a message with respect to a predetermined database object when update was executed after insertion for said database object (Cohen: Column 2, lines 35-67; Column 3, lines 32-35; Column 5, lines 26-67; Column 6, lines 49-67).

With respect to claim 7, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 1, wherein said first computer system stores one deletion log in said message and does not store contents with respect to a predetermined database object when deletion was executed after update for said database object (Cohen: Column 2, lines 35-67; Column 3, lines 32-35; Column 5, lines 26-67; Column 6, lines 49-67).

With respect to claim 8, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 1, wherein said first computer system does not store a log and contents with respect to a predetermined database object when deletion was executed after insertion for said database object (Cohen: Column 2, lines 35-67; Column 3, lines 32-35; Column 6, lines 49-67).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to REZWANUL MAHMOOD whose telephone number is (571)272-5625. The examiner can normally be reached on M - F 10 A.M. - 5 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/R. M./   /Shahid Al Alam/
Examiner, Art Unit 2164   Primary Examiner, Art Unit 2162
January 31, 2009